



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7**

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Lenexa, Kansas 66219

**JUN 16 2014**

Ed Smith  
Safe Energy Director  
Missouri Coalition for the Environment  
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Dear Mr. Smith:

This is in response to your letter dated April 25, 2014 to Karl Brooks, Regional Administrator, EPA Region 7, which was forwarded to me for response. The EPA's responses to the questions you raised about the West Lake Landfill Superfund site are addressed as follows:

Regarding the Administrative Settlement Agreement and Order on Consent for Removal  
Action – Preconstruction Work (CERCLA-07-2014-0002):

1. Section VII #26: Will EPA Region 7 make the qualifications of all contractors being used at the site available to the public before determining if a contractor is suitable to work at the site?

A: The EPA is responsible for ensuring the timely and appropriate performance of the work required by the Order. The EPA has extensive and unique expertise determining the qualifications of contractors engaged in work at Superfund sites. Accordingly, the EPA bears sole responsibility for reviewing the qualifications and determining the suitability of contractors performing work under the Order. The qualifications of contractors being used at the site, upon the EPA's receipt, are available to the public upon request.

2. Section VII #27: Does EPA Region 7 approve or disapprove of EMSI as a contractor for the isolation barrier? Stating that, "EPA has not disapproved..." is confusing. Does EPA Region 7 believe EMSI is capable of putting public safety as its first priority after the conclusions of its fire report have been challenged by EPA's Office of Research and Development, Missouri's Department of Health and Senior Services and DNR's independent landfill fire expert, Todd Thalhamer?

A: Under its Orders, the EPA does not typically approve of contractors, the EPA only disapproves if the circumstances require. In this instance, the EPA has found no basis to disapprove of EMSI as a Project Coordinator/contractor for the Respondents under the Order. All work conducted by Respondents and their contractors at the site is subject to EPA oversight. The observations or comments made by the EPA or its partners on EMSI's submittals to the EPA demonstrate a robust engagement in the discussion of



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issues where objective conclusions frequently do not exist. This exchange demonstrates the strong oversight of the Respondents' work by the EPA. This type of review, comment, and revision process is common in the scientific community.

3. Section VIII #30b: Why "clear obstructive vegetation and surface obstacles which would be impediments to the installation of an isolation barrier" when an isolation barrier location has not yet been determined? It appears that vegetation will unnecessarily be removed from the landfill. Clarification here will be helpful.

A: The pre-construction work will be performed on a schedule that supports the other work required to determine the alignment of the isolation barrier. Some of these tasks will be performed before the barrier alignment is finalized, and are necessary regardless of its location. While the EPA does not anticipate requiring the Respondents to clear vegetation before the barrier alignment is finalized, the EPA believes that establishing the work plans required for such work beforehand will enhance and accelerate the performance of that work and move the project forward.

4. Upon received documents related to the Agreement, will EPA Region 7 make documents available within 2 business days on its website related to the isolation barrier at the West Lake Landfill?

Documents of interest include, but are not limited to, those referenced in:

- a. Section VIII #31 – Work Plan(s) and Implementation, paragraphs A & B
- b. Section VIII #32 – Health and Safety Plan documents
- c. Section VIII #34 – Reporting, paragraphs A, B, & C
- d. Section VIII #35 – Final Report document
- e. Section X #39 – Any information EPA Region 7 requests from the Respondents
- f. Section X #40 & #41 – Will EPA Region 7 make publicly available which records the Respondents claim as "confidential" as outlined in paragraph #41?
- g. Section XVI #54 – Dispute Resolution documents
- h. Section XVI #55 – Any changes to the Settlement Agreement
- i. Section XVII #57 & #58 – Any written documents related to Force Majeure
- j. Section XXVI #82 – Financial Assurance documents
- k. Section XXVII #87-89 – Modification documents
- l. Section XXVIII #90 – Additional Removal Action documents

A: The EPA will release the submittals under the pre-construction Order as quickly as practicable following their receipt. The length that this will require will depend largely on the technical and administrative requirements for posting documents to the West Lake web site. In most cases this would require approximately five business days. All draft documents will be subject to the EPA's thorough review. Respondents will be required to revise the documents to make them acceptable to the EPA and its technical experts prior to the EPA approval.

## General Questions

EPA Region 7 confirmed a smoldering or surface fire was not considered or evaluated before the 2008 Record of Decision (ROD), which called for capping and leaving the radioactive wastes at West Lake. Below are questions related to the smoldering fire (or future fires), the radioactive wastes at the West Lake Landfill, and other areas of concern.

1. Will EPA Region 7 conduct its own investigation into the impact a smoldering or surface fire will have on the RIM at the West Lake Landfill before the ROD Amendment? If no, are there plans for an independent assessment of the impacts outside of EPA, which are not conducted by the financially responsible parties? To date the only study conducted on the impacts of a smoldering fire on the radioactive wastes is the flawed conclusions submitted by EMSI to EPA Region 7 in January, 2014.

A: The EPA is conducting its own analysis of potential impacts that the SSE may have on the RIM. That analysis is being conducted through EPA's review – with ORD and state input - of the SSE report submitted by the Respondents in January 2014. The EPA expects that this process will result in a rigorously considered, scientifically-supported analysis.

2. Will EPA Region 7 reevaluate the Baseline Risk Assessment to account for the risks posed if a smoldering or surface fire contacts the RIM? The EPA Office of Research and Development's memo, based on the 2008 ROD, determined that radioactive isotopes could migrate offsite in the groundwater or in the air if a smoldering landfill fire were in contact with RIM. It is critical that all risk assessments used to inform the ROD Amendment incorporate the exposure impacts a smoldering fire would have on the people around the landfill.

A: A risk assessment involves three key steps: characterizing the exposure to a contaminant (both exposure pathways and concentrations of the contaminant in various environmental media), evaluating the toxicity of the contaminant and calculating a numerical risk value based on that data. Because it is not possible to accurately predict whether, and how, a SSE may occur or interact with RIM, the exposure component of the risk assessment cannot be quantified. As a result, the baseline risk assessment cannot reflect such risks. However, ORD's review of Respondents' SSE report qualitatively evaluates the potential future risks related to an SSE contacting RIM.

3. Will EPA Region 7 conduct any tests to identify possible RIM between the eventual isolation barrier location and the ongoing smoldering fire in the South Quarry? Given the presence of previously unidentified RIM along the originally proposed isolation barrier, there is a legitimate concern that other previously unidentified RIM is between the eventual isolation barrier line and the smoldering fire. If yes, when will these details be made available? If no, why not?

A: The EPA has directed the Respondents to step outward from the known locations of RIM to establish the extent of the RIM. The previously un-identified RIM discovered during the gamma cone penetrometer work in late 2013 appears to be contiguous to the RIM identified during the Remedial Investigation. Based on the site history and existing data, the EPA has no evidence or suspicion that non-contiguous (i.e., "disconnected") bodies of RIM exist in the Bridgeton Sanitary Landfill.

4. Does EPA Region 7 have a "Plan B" in case an isolation barrier line cannot be found due to the presence of RIM in the North Quarry and OU-1 Area 1? EPA Region 7 has made a commitment at the last several Community Advisory Group (CAG) meetings that no RIM will be impacted or excavated during the construction of an isolation barrier. Will EPA Region 7 include an emergency plan in the ROD Amendment in the case a fire (or any event) results in radioactive material moving offsite?

A: At this time, the EPA and its partners are still evaluating the potential effect that an SSE may have on the RIM. While the EPA is considering all appropriate options, it has made no decisions regarding what responses may be included in a ROD Amendment.

5. Did EPA Region 7 consider other options, like excavating the RIM in OU-1 Area 1, before agreeing that an “isolation barrier” is in the best long-term interest of protecting people around the landfill? If yes, please provide which options were discussed, when, and documents that support this claim. If no, why not?

A: The EPA is considering all appropriate alternatives and plans to issue a new Proposed Plan with a new public comment period once the re-evaluation is complete. The removal of the RIM was considered in detail by the EPA during the feasibility study completed in 2006 and as reflected in the EPA’s 2006 Proposed Plan and the 2008 Record of Decision for the site. A detailed analysis of the possible effects of the SSE impacting the RIM was submitted to the EPA by Republic, and ORD reviewed and commented on that analysis. A supplemental Supplemental Feasibility Study (SSFS) is currently being conducted by the responsible parties. Further analysis of the removal of the RIM will be included in that study and removal of the RIM will be considered by the EPA in any future Proposed Plan and Record of Decision for OU-1.

6. Is EPA Region 7 or the U.S. Army Corps of Engineers Formerly Utilized Sites Remedial Action Program (FUSRAP) legally responsible for inspecting haul routes between the West Lake Landfill and the Hazelwood Interim Storage Site (HISS), which is the location where the radioactive materials came from that were dumped at the landfill?

A: The U.S. Army Corps of Engineers’ ROD for the North St. Louis County FUSRAP sites, dated September 2005, pages 2-17, describes an “intersection sampling effort” that the FUSRAP program conducted on the routes between the Hazelwood Interim Storage Site (HISS) and West Lake Landfill. As part of this effort, 231 samples were collected and analyzed for Ra-226, Th-230, Th-232, and U-238. The ROD states that “[n]one of the samples collected exhibited radionuclide concentrations exceeding the proposed surface and subsurface soil remediation goals identified in this ROD.” Further information on these results can be obtained from the USACE FUSRAP program.

7. If EPA Region 7 can charge the financially responsible parties for the services of the Kansas City Army Corps of Engineers involvement at West Lake, can EPA Region 7 equally charge the financially responsible parties for the involvement of the St. Louis Army Corps of Engineers FUSRAP?

A: The Order between the EPA and the Respondents provides that Respondents will reimburse the EPA for all Future Response Costs (Section XV – Payment of Response Costs). The term “Future Response Costs” is defined in Section III (Definitions) of the Order and includes the EPA’s direct and indirect costs as well as the EPA’s contractor costs. Costs that the EPA incurs with respect to the USACE, whether its Kansas City or St. Louis office, will be billing as Future Response Costs in accordance with the Order.

8. Will EPA Region 7 organize its website, given the volumes of documents that will be exchanged during the isolation barrier preconstruction and construction, which distinguishes documents as “Draft” and “Approved”?

A: EPA Region 7 believes that the release of these documents is consistent with our transparency objectives and past practices on releasing information relevant to the public. Accordingly, the EPA will release the submittals under the pre-construction Order as quickly as practicable following their receipt. The length it requires will depend largely on the technical and administrative requirements for posting

documents to the West Lake web site. In most cases this would require approximately five business days in order to meet federal requirements as detailed in the EPA's May 23, 2014, letter to you on this subject. We will strive to designate documents as "draft," final," or "approved" as we post documents.

9. Does EPA Region 7 need to be asked by the Missouri Department of Natural Resources (MDNR) to test the steam generated by Gas Extraction Well (GEW) maintenance for radon and other radioactive isotopes? If not, will steam from GEWs be tested immediately? Equally, does EPA Region 7 need to be asked by the MDNR to equip people working on GEWs with the type of radioactive detection devices being used for the people working on the isolation barrier? If no, will EPA Region 7 equip people working on the GEWs with the same safety precautions being used for the isolation barrier immediately? Will EPA Region 7 provide a health physicist to monitor the work conducted at GEWs that produce a significant amount of steam? The EPA's Office of Research and Development noted that radon can be transported via steam and gases during a smoldering fire and EPA Region 7's documents show radioactive groundwater contamination throughout the landfill. MCE's concern is that people are currently working on GEWs that produce steam and they are not wearing any protective gear, specifically respiratory. Our confusion over jurisdiction stems from the fact that EPA Region 7 states it is responsible for the radioactivity at the site but DNR is responsible for the smoldering fire. See the below photograph for context:

A: Working conditions and protective measures applicable to the workers referenced in this question are under the jurisdiction of the Occupational Safety and Health Administration (OSHA), not MDNR or the EPA. On- and off-site air monitoring for radiation (not specifically associated with the work referenced in this question) have shown no elevated levels of radiation in the area.

10. Does EPA Region 7 need to be asked by MDNR to determine if the leachate being produced by the smoldering landfill fire is radioactive? If no, has EPA Region 7 tested the leachate to determine if it is contaminated with radioactive material and is safe for disposal at Metropolitan Sewer District (MSD)? Again, EPA Region 7 has made clear it is in charge of the radioactive material at the West Lake Landfill and therefore should be in charge of testing anything that leaves the landfill to determine if it is RIM.

A: Leachate collected from the Bridgeton Sanitary Landfill is being tested for radiation as well as many other contaminants. Several radionuclides as well as gross alpha, beta, and gamma have been detected. MSD has this analytical data, and it is their decision whether or not to accept the leachate.

11. What liquid or solid waste generated from the landfill does EPA Region 7 test for RIM before it leaves the landfill?

A: As stated above, the leachate is tested for radiation. Investigation-derived wastes such as purged groundwater and disposable personal protective equipment produced during work pursuant to the EPA's Orders with the Respondents will be tested for radiation and other contaminants to determine proper off-site disposal methods. The EPA does not perform these tests itself but reviews the data generated by the Respondents' contractors and analytical laboratories.

12. Given the variable weather patterns the St. Louis area experiences and length of time the RIM sat at or near the surface of the landfill, how can EPA Region 7 be confident there is no radioactive offsite contamination if EPA Region 7 is unwilling to test offsite?

A: The EPA recently tested for off-site radiation in surface soils via the ASPECT aircraft. This survey extended well beyond the perimeter of the Site and found no elevated radiation levels off-site. On- and off-site air monitoring for radiation (not specifically associated with the work referenced in this question) have shown no elevated levels of radiation in the area. These lines of evidence reinforce previous determinations by the EPA that the materials are not migrating off-site. The EPA also recently completed a comprehensive radiation screening of the 70-acre Bridgeton Municipal Athletic Complex (BMAC). This screening resulted in the collection of data from 60,000 points along 45 miles of transecting lines. EPA teams screened BMAC for gamma radiation and also collected more than 100 soil samples for laboratory testing for thorium, radium, and uranium. The soil samples and preliminary screening results are currently undergoing an extensive quality control, quality assurance procedure to ensure the accuracy and validity of the data. Once the QA/QC review is complete, the EPA will make the results available to the public on its website and via social and traditional media.

13. Has EPA Region 7 tested offsite other than near the Ford Property or Buffer Zone area?  
If so, please share the documents or share where to find them.

A: See the response to the previous question. Documents describing the ASPECT overflights and air monitoring data are available on the EPA's and MDNR's websites.

14. Are there plans for offsite testing before EPA Region 7 offers a ROD Amendment? If no, why not? If yes, will EPA Region 7 allow the St. Louis Army Corps of Engineers FUSRAP to conduct offsite sampling instead of the PRP's hired contractor, EMSI?

A: See response to question 12. In addition, the MDNR conducted some sampling off-site. The results are contained in their May 16, 2013 report and show that sample results are consistent with background.

15. Will EPA Region 7 provide an official document from EPA Headquarters responding to the Wall Street Journal article alleging unprecedented secret review of the West Lake Landfill between EPA Region 7 and the National Remedy Review Board (NRRB)?

A: EPA Headquarters responded directly to the Wall Street Journal reporter. The NRRB review followed pre-established procedures.

MCE is also interested in answers to questions asked by DNR's independent landfill fire expert, Todd Thalhamer, in a memo dated April 14, 2014.

1. Has US EPA examined for any radiological uptake in the vegetation that has been allowed to grow within the Operable Units?

A: The Respondents sampled OU-1 vegetation for radium, thorium and uranium in March, 2009. While there are no regulatory standards for these radionuclides in vegetation, concentrations of these radionuclides in the samples were well below the cleanup standards defined in the SFS of 5 pCi/g plus background for radium and thorium and 50 pCi/g plus background for uranium.

2. How has US EPA accounted for storm water and erosion control issues in the past? And how would US EPA manage the storm water and erosion control once a fire has removed the vegetative cover from the Operable Units?

A: The EPA requests that clarification of this question in order for it to comprehend the intent and develop a response.

3. Should the local fire agency even respond to a vegetation fire within the Operable Units? Or does this responsibility fall to US EPA personnel?

A: The EPA has no authority or expertise in fighting fires, nor can we speak to that authority or decision. That question should be directed to the local fire department.

4. If it is safe for the local fire agency to enter the radiological areas to extinguish a surface fire, what level of protection is needed for personnel to enter these areas?

A: The EPA has no expertise in fighting fires. Fire Departments are trained in the proper use of protective equipment for different scenarios. That question should be directed to the local fire department.

5. Should the vegetation just be allowed to burn off?

A: The EPA has no expertise in fighting fires. Fire Departments are trained in fire-fighting decision-making in different scenarios. That question should be directed to the local fire department

6. What actions should be taken by the emergency management agencies and first responders to protect the first responders and the surrounding community from such a wildfire (i.e., resulting smoke plume and blowing materials, such as ash)?

A: The EPA has no expertise in fighting fires. Fire Departments are trained in fire-fighting decision-making in different scenarios. In any active fire scenario, it is typically advisable for the public to stay out of the smoke by moving to another area or staying indoors. That question should be directed to the local fire department.

7. Is it possible for a vegetation fire (surface fire) to start a subsurface smoldering event within the Operable Units?

A: While this has happened occasionally at other landfills in the past, the circumstances at the OU-1 cells (including the age of the waste, thickness of the waste mass, and proportion of relatively non-flammable construction and demolition wastes) make such an event extremely unlikely at OU-1.

8. What control methods have been implemented to prevent this from occurring? Should the heavy brush within the Operable Units be removed? Is the current cover in the Operable Units sufficient to prevent a surface fire from impacting the unclassified waste?

A: The ROD-selected remedy of capping the waste in place would prevent any future surface fires from affecting the buried wastes. There are no interim control methods (i.e., before implementation of a final remedy) to prevent surface fires from occurring.

Thank you for your continued interest in this site. As you know, the EPA supports the Community Advisory Group as the public forum for local community members to present and discuss questions and concerns. The West Lake Landfill Superfund site CAG represents the community and regularly submits questions that the EPA responds to in writing and in person at the CAG meetings.

We have been receiving the same or similar questions from both the CAG and MCE. The processing of these questions requires significant time from the technical staff who are working diligently on managing the complex issues pertaining to the isolation barrier design, location, and construction as well as the long-term remedy for the site. We ask that MCE submit future questions to EPA through the CAG. We have appreciated your cooperation in the past and hope we can count on it once again. Submitting questions through the CAG also allows the community to find answers to their questions in one place, and allows the CAG to function in its role as representative of the community and a recognized conduit between the community and the agency.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey L. Field".

Jeffrey L. Field, Chief  
MO/KS Remedial Branch  
Superfund Division